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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/572,623

03/17/2006

Andrea Giraldo

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

STEINBERG, JEFFREY S

ART UNIT

PAPER NUMBER

4193

MAIL DATE

DELIVERY MODE

02/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------|----------------|--|
| <i>Office Action Summary</i> | Application No. | Applicant(s) | |
| | 10/572,623 | GIRALDO ET AL. | |
| | Examiner | Art Unit | |
| | JEFFREY STEINBERG | 4193 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/17/2006</u> | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). The remaining figures should, likewise, be labeled accordingly. Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The Specification is objected to because of its informality. Please see the guidelines below. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.

- (1) Field of the Invention.
- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6-8, 10-11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by a US Patent to Kimura (US 6,972,753).

Regarding Claim 1, Kimura discloses a user input apparatus for detecting an input position relative to the apparatus, wherein the apparatus comprises: a light guiding layer (Column 3, Line 40), having an optical structure configured to confine a fraction of light, incident on the apparatus from the exterior, in the light guiding layer, the incident light being generated by a remote input device ("... an input pen or fingertip," Abstract) operable by a user for interacting with the apparatus, and configured to transmit the confined through the layer towards light detecting means ("optical sensor array 110,"

Art Unit: 4193

Kimura '753, Column 3, Lines 52-53) for detecting the confined light and relating the detecting of the confined light to the input position.

Regarding Claim 6, the light detecting means comprises: a first light detecting means ("optical sensor array 110," Kimura '753, Column 3, Lines 52-53) arranged to detect confined light traveling in a first direction parallel to a plane of said layer; and a second light detecting means ("optical sensor array 120," Kimura '753, Column 3, Lines 42-43) arranged to detect confined light traveling in a second direction parallel to the plane of said layer.

Regarding Claim 7, Kimura discloses the apparatus of claim 1, comprising a display monitor(Kimura, '753, Title).

Regarding Claim 8, Kimura discloses the apparatus of claim 7, wherein the display monitor comprises a liquid crystal display, an LED display or an electronic ink display(Column 4, Line 49 and Column 8, Line 49).

Regarding Claim 10 the layer is arranged at the exterior face of a screen of the display monitor (Kimura, Abstract, where it is stated that "When an input pen or a fingertip touches a surface of the light guide panel . . .).

Regarding Claim 11, Kimura discloses a light guide layer (Column 3, Line 40), arranged

Art Unit: 4193

at the exterior face of the layer and having a light source (Column 3, Line 47, "illumination device") arranged to emit light into the light guide, the light guide being optically matched with its surroundings in such way that the emitted light is confined within the light guide (Column 12, Line 21) by means of total internal reflection, and is extracted from the light guide and directed into the layer when a user established physical contact with the apparatus at the input position.

Regarding Claim 14, the apparatus of claim 1, wherein the light detecting means comprises a photo detector ("optical sensor array 110," Kimura '753, Column 3, Lines 52-53).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 4193

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura ('753) in view of a US Patent to Kasday (US 4,484,179).

Regarding Claim 2, Kimura discloses the apparatus of claim 1, wherein the light guiding layer(Kimura '753, Column 2, Lines 32-33) but does not disclose canalizing means.

Kasday ('179) teaches a means consisting of an "air gap 30" which is necessarily parallel to the layers it is between (Kasday, Column 4, Line 7) to canalize the light confined in the layer (Kimura '753, Column 2, Lines 32-33) in a first direction parallel to a plane of said layer (Id.) and in a second direction parallel to the plane of said layer(Id.).

Regarding Claim 3, Kimura('753) in combination with Kasday('179) disclose the apparatus of claim 2 but Kasday('179), by itself, does not disclose the first direction is substantially orthogonal to the second direction. Kimura teaches such an arrangement.

Art Unit: 4193

Figure 1A, depict and X and Y axes). Kimura and Kasday are analogous because they are both concerned with the same endeavor, electronic devices that employ light sources. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Kasday, since such a modification would have improved the functionality of the touchpad.

Regarding Claims 4 and 5, Kimura in combination with Kasday('179) discloses the apparatus of claim 2 wherein the canalizing means compris[es]ing a pyramidally shaped structure or a volume holographic structure(Kasday. Column 9, Lines 14-21, where the reference discloses a sealing material (or housing material) 18. . . “

7. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 6,972,753) as in view of Ferguson and further in view of Graham et al. (6,351,260).

Regarding Claim 9, Kimura discloses the apparatus of claim 7, but does not disclose an active matrix type display or wherein the light detecting means is integrated with an active matrix substrate or a coupling means. Kimura teaches the light detecting means (“optical sensor array 110,” Kimura '753, Column 3, Lines 52-53) that is integrated with an active matrix substrate of the display. Ferguson teaches an active matrix display (Ferguson, Column 2, Lines 50-52). Kimura and Ferguson are analogous because they are both concerned with the same endeavor, electronic devices that employ light

Art Unit: 4193

sources. A light coupling means configured to couple at least part of the confined light from said layer to the light detecting means is taught by Graham (Graham, Column 10, Line 22 & Fig. 7A). Kimura and Graham are analogous because they are both concerned with the same endeavor, electronic devices that employ light sources. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Graham, since such a modification would have improved the functionality of the touchpad.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 6,972,753) as applied to claim 1, above and further in view of Ogawa (6,441,362).

Regarding Claims 12 and 13, Kimura ('753) discloses the apparatus of Claim 1 but does not disclose the optical filter. Ogawa teaches the Optical Filter (Column 4, Line 6). (claim 12). The Examiner considers the Optical Filter and the Electrical Filter to be equivalents as a result of the description in the Applicant's Specification (US PG Publication US 2006/0290684, Page 2, ¶¶ [0018]). Kimura and Ogawa are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Ogawa, since such a modification would have improved the functionality of the touchpad.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Cross (US 7,019,734), Rosenberg (US 6,259,382) and Pittel et al. (US 7,268,774).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY STEINBERG whose telephone number is (571)270-7617. The examiner can normally be reached on Monday-Friday 7:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEFFREY STEINBERG/
Examiner, Art Unit 4193

/Derris H Banks/
Supervisory Patent Examiner, Art
Unit 3725

Application/Control Number: 10/572,623
Art Unit: 4193

Page 10